

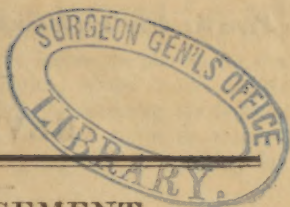
WHILLDIN (J. G.)

*Whilldin's Review*

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*Whilldin (J. G.)*







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## ADVERTISEMENT.

Since the Oration of Dr. *W. P. C. Barton*, before the Medical Society of Philadelphia, became public, JAMES WEBSTER, the proprietor of the "*American Medical Recorder*," has been daily called upon for the Reviews of Dr. Whilldin's Thesis and Dr. Chapman's paper on the *Nourishment of the Fœtus*. With a view to accommodate those gentlemen who are unacquainted with medicine, and to satisfy public curiosity, he has been induced to reprint these Reviews as originally published in the *Medical Recorder*.—PRICE 25 CENTS.

*Philadelphia, March, 1821.*

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*From the American Medical Recorder, vol. III. p. 500.*

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## REVIEWS.

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### CRITICAL DEPARTMENT.

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Quidquid venerit obvium, loquamur  
Morosa sine cogitatione.

MARTIAL.

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*An Essay on the Nature and Treatment of that State of Disorder generally called Dropsy.* By John G. Whilldin, M. D. Philadelphia. Printed for the Author, by William Fry, 1820.

It is not our intention that publications of the character of the one, whose title we have given above, should come under the censorship of our criticisms. Our object in bringing before our readers, Dr. Whilldin's Thesis, is two fold. 1st, We consider ourselves bound to animadvert upon certain strange and unheard-of measures pursued in relation to it, by certain of the professors; and 2dly, to review a system of preparation of students for examination, which is rapidly gaining ground, in the school of Physick of the University of Pennsylvania, and which if not checked by the interference of the regents of the establishment, will in a very short time, lower the character of the institution, and destroy the reputation of her diplomas.

Dr. Whilldin's thesis is written with great neatness and modesty, it contains a considerable number of valuable ob-



servations, and is highly creditable to the talents of a young gentleman just entering on the practice of his profession. It was not written with the view of being published and has only been brought before the public, for the purpose of giving a true explanation, of the causes of difficulty experienced by the author, in obtaining his degree. The doctor, however, tells his own story so simply, and clearly, that we make no apology for transcribing his preface :

“ As I would not venture the following essay before the impartial tribunal of public opinion on its own intrinsic merit, justice to myself requires a brief explanation of the circumstances that have led to its publication ; and as I profess to give a plain and candid narrative of facts, I shall be pleased to acknowledge any thing that may be hereafter found to be partial or essentially imperfect in my statement

“ Having strictly complied with every prerequisite, I presented the following essay to the Dean of the Medical Faculty in the University of Pennsylvania, about the 20th of February last, and requested him to enter my name on the list of candidates for the degree of doctor of medicine, and on the 20th of the next succeeding month, having been previously notified by him, I appeared before the Faculty, to sustain the customary trial.

“ During my examination, the Professor of the Practice of Physic stated to the rest of the Faculty, that he had read my thesis, and found my pathological and practical views correct, but that I had gone from the point to give a loud denunciation against Nosology ; that I declared it to be abandoned by every intelligent practitioner, and attributed our difficulty in EVERY instance to its influence ; that I appeared to refer to what was going on in their school, and that he objected to the personality of my observations.

“ In answer to these remarks I said, that as I was discussing opinions and not characters, I deemed it my right to speak freely ; that in denouncing Nosology, I had written without the slightest reference to individuals, and that

so far from adverting to the state of affairs in their school, whatever might be my opinion, I would not impertinently obtrude it on the Faculty at that time.

“With this explanation, the Professor declared his most perfect satisfaction, and concluded my examination, when I retired according to custom, and after a few seconds, was introduced by the Dean, UNCONDITIONALLY received by every member of the Faculty with the usual congratulations of admission, and requested to enrol my name in the list of graduates.

“Supposing the decision of the Faculty to be final, and believing nothing more would be required of me than to appear publicly to receive the honour that had been awarded me, I did not hesitate to leave the city on the following day, but was greatly surprised on the evening of the 22d, at receiving from the Dean a note,\* stating that he wished to see me with respect to my thesis, which by a resolve of the Medical Faculty, would require some alterations. I returned home by the earliest opportunity, and on the evening of the 23d called on the Dean, who repeated what he had said in his note. On my declaring my perfect willingness to make any further explanation that might be considered necessary, and again disavowing any intention of personality, he declared that he and all the Faculty were perfectly convinced my remarks were not personal, but not approving of the opinions advanced in the parts of my thesis referred to during my examination, they did not wish to appear to sanction them by allowing them to remain therein.

“Supposing that freedom of inquiry was at least permitted, if not recommended, I endeavoured to defend the opinions I had advanced, but after an hour’s conversation, was again told certain alterations must be made in my thesis. and requested to meet the Dean at the University on the ensuing morning, that he might show me the objectionable parts. With this request I complied, when I was commanded (with the threat that if I refused I should forfeit my degree) to remove the following portion of my thesis :

\* This note was dated 20th, and bore the post mark of 21st.

‘ Though there are unquestionably great difficulties essentially connected with the state of disease of which we are treating, I doubt not, indeed I feel confident that the want of success in attempts at this removal, is, in very many instances, attributable to the absurd practice of addressing our remedies to one particular symptom, without the slightest reference to the immense variety of circumstances under which it may occur. This, the legitimate offspring of Nosology, is an evil greatly to be deplored, not only for the mischief it has done in the practice of regular physicians, but for the dreadful ravages it will yet commit, in the broad foundation it has laid of the grossest empiricism.

‘ Among the many evidences of its absurdity, Dr. Sydenham has recorded one instance in his Treatise of the Dropsy. Having succeeded in effecting a cure in one instance (the first which he had to treat) by a particular plan of treatment, he says he thought he had become master of an infallible remedy, and boldly and confidently administered it in the next case that came under his care, but having persevered in its use for some time, his patient gradually grew worse, became dissatisfied, and dismissed him. He further adds, “ if my memory does not fail me, she recovered by the aid of another physician, who administered more powerful remedies.” And such will be the mortifying fate of every practitioner, who addresses his remedies to a name given to a variable combination of symptoms, instead of watching attentively their many changes, and varying his treatment accordingly.

‘ The late Dr. Rush very well compared a physician who pursued such a course, to the Bermudian sailor, who when he set out on a voyage, threw out shingles from each side of his ship, to serve him as guides on his return.

‘ When the monster Nosology reigned unopposed, it was to be expected that such practice should prevail ; but it is truly astonishing, that it should still have existence, where the first medical precept we are taught, is “ to attend to the state of the system, and prescribe accordingly.”



‘ If the force of error is so strong as to prevent us from  
 ‘ acknowledging and embracing truth, when it is placed be-  
 ‘ fore us in its strongest light, how transcendently great  
 ‘ must be the powers of that genius, which can bring it  
 ‘ forth from the depth of obscurity, in which it is some-  
 ‘ times buried ; and, divesting himself of the prejudices of  
 ‘ early education, will firmly stand as its advocate, regard-  
 ‘ less of the weight of opposition he must meet.

‘ I cannot here withhold my humble tribute of gratitude  
 ‘ and praise to that great benefactor of mankind, whose  
 ‘ gigantic powers shattered the fetters of Nosological tyran-  
 ‘ ny, and who, while he warmly advocated the national li-  
 ‘ berty of his country, achieved her INDEPENDENCE in Me-  
 ‘ dicine. Impelled by an ardent love for truth, and encour-  
 ‘ aged by the hope that it would finally prevail against the  
 ‘ strongest opposition, Dr. Rush not only discovered and  
 ‘ embraced it, but stood almost alone in its defence ; and so  
 ‘ far from being discouraged by the opprobrious epithets that  
 ‘ were so abundantly showered on him, viewed them as in-  
 ‘ centive to increased efforts, and became stronger by resis-  
 ‘ tance. But though he has done much, though he has  
 ‘ routed the enemy, and made his final extermination inevita-  
 ‘ ble, the conquest is not yet complete ; and we still find that  
 ‘ in the very quarter in which truth was first lighted, the  
 ‘ magic spell of error is not yet entirely broken, and physi-  
 ‘ cians too frequently follow its allusions.\*

\* “ Though this is not the place to enter into a formal defence  
 of the opinions I have advocated, I may remark, that diseases,  
 like plants and animals, were formerly divided into classes, or-  
 ders and genera, and that some of these classifications consisted  
 of many hundred supposed varieties, each of which required some  
 specific difference in its treatment ; that the late Dr. Rush ex-  
 posed the fallacy of this artificial arrangement, totally rejected  
 the practice of prescribing for a name applied to a variable and  
 uncertain combination of symptoms, & substituted in its place, a  
 careful and unremitting attention to the fluctuating state of the  
 system ; and that for the promulgation of principles whose  
 benefit to mankind is incalculable ; principles which are now  
 PRACTICALLY adopted by a vast majority of physicians in this



"I now expressed my astonishment that the Faculty should again call up that part of my thesis, their objections to which had been previously answered ; informed the Dean that as I adopted or rejected opinions, only from a belief of their correctness or falsity, I could not abandon any doctrines I had advocated, except from a conviction of their being erroneous, and requested the Faculty would grant me some time to consider their demand. This request the Dean refused, telling me I had but one alternative, either to comply or lose my degree ; and leaving me with direction to wait till he could converse with the rest of the Faculty.

"After an interval of about an hour, being called before that body, I was told by the Professor of Anatomy, that the Faculty were dissatisfied with the part of my thesis previously shown to me, and insisted that it should be rescinded, and that I must immediately say yes or no. I replied, I was ready to conform to the laws of their school, if I would not be considered as in any measure abandoning my opinions. This being fairly understood, I complied with the demand ; and now, to obviate any erroneous impressions as to the nature of my difficulty with the Medical Faculty, I submit to the public my essay as originally presented, and am at any moment ready to vindicate the opinions advanced therein.

J. G. W."

We have printed the obnoxious passages conspicuously, and we would beg our readers to peruse them again and again, to ascertain whether *they* can find any thing in them, deserving of so severe a sentence, as the one pronounced against them by the learned faculty—for really we must confess, that after a long and careful consideration of them, we cannot discover a shadow of objection against the doctrines they contain. The first paragraph sets forth,

country, and which are now daily gaining ground in Europe, he was greatly persecuted.

"During my residence in the Philadelphia Alms-House, I had an opportunity of seeing the truth of these principles experimentally proved ; and as I have adopted them from a firm conviction of their being correct, cannot hesitate to ascribe honour to their distinguished author."

that it is not only dangerous, but absurd, to address our remedies to one particular symptom of disease, without reference to the immense variety of circumstances under which it may occur. We consider this excellent sense, and give the observation our most hearty concurrence. How the faculty of physic, can object to it, we are at a loss to know ; but in their corporate capacity, they may have an illumination, which is refused to us plain physicians. The second paragraph is brought forward to support and confirm the maxim contained in the first. Surely the professor of the practice of physic, would not wish his colleagues to assist him, in crushing and concealing, the facts delivered by Sydenham. The third contains a beautiful comparison from Dr. Rush. The fourth states, that, when the monster Nosology reigned unopposed, a practice like the above might prevail ; but that we would not expect it, when the first doctrine taught, is “to attend to the state of the system, and to prescribe accordingly.” This passage being in perfect accordance with the doctrines taught in the school, we have puzzled ourselves very much to find out an objection to it. We feel not a little proud at having, as we flatter ourselves, unriddled the enigma. The professors are a worthy, well-behaved body of gentlemen, and so guarded against the use of abusive epithets, that they have felt, we conceive, angry with the young graduate for personifying Nosology, and calling him a monster ! The two concluding paragraphs contain a deserved eulogium upon the late Dr. Rush. That transcendant genius, whose powers of mind, seconded by the most unremitting exertion, enabled him in a few years to establish for America, a high and deserved medical reputation in Europe, and who, supported on the one hand by a Wistar, and on the other by a Barton, gave to the establishment, with which he was connected, a rank far above that of any other institution of his country—a rank not inferior to that possessed by any other medical university in the world.

We fear, from what we have found it our duty to write, that the faculty may suppose the bearing of our observations invidious, and that it would be handsomer in us to allow

these things to pass unnoticed. We are happy now, to have the pleasing task of vindicating the faculty, and we trust, they will allow, that if justice forces us to criticise with independence, that that justice is equally heard, when she calls on us to defend the faculty from traduction.

There are in every society, a sufficient number of idle, ill tempered people, who give to the actions of their cotemporaries, the most unjust and uncharitable explanations. Now, this has unfortunately been the case to a very great extent, in relation to the explanation of the difficulties opposed to Dr. W's graduation. They not having sufficient tact to discover, like ourselves, the true reason in the naughty word MONSTER, have gone the length of declaring, that the single cause of difficulty consisted in an unworthy spirit of jealousy possessed by certain members of the faculty, prompting them to desire, that the name and the fame, of the immortal Rush, should be allowed to sink into oblivion. We feel satisfied that we shall be enabled to demonstrate, to the satisfaction of our readers, that this was not the case.

1st. We are persuaded that the gentlemen who compose the medical faculty, have too much good sense to suppose, for a moment, that any endeavour of their's could have the effect of blotting the name of Rush from the page of immortality.

2dly We know that the two gentlemen of the faculty who became most conspicuous in the transaction, owe too much to Rush to come forward, and endeavour to take a just tribute of admiration from the memory of their departed friend and supporter. The Professor of anatomy, who demanded the categorical answer, yes or no, we are well assured, respects and honours the reputation of his departed teacher and patron. And although we have been told that the present Professor of the practice of physic had some disagreement with his predecessor previous to his decease, still we know, we think, enough of Dr. Chapman, to believe him above so contemptible a meanness as the one he has been charged with. It must be confessed, that there is some difficulty in explaining, how the professor



could think there was any personality in Dr. Whilldin's observations, and in case a disagreeable suspicion might arise in the minds of some, who do not know the doc or as well as we do, we shall not rest our assertion, that that gentleman venerates the memory of Rush, on our own simple dictum; we shall bring forward unanswerable data to prove it.

It is a fact well known to those gentlemen, who were in the habit of attending the lectures of Rush, and since, of listening to the prelections of his successor, that the doctrines delivered by the former are continued to be taught by the latter, and that the most beautiful of the illustrations employed by the present professor, are literally copied from the notes of the late one. Nay more that in some instances nearly whole lectures delivered by Dr. C. are virtually the same with some that had been read from that chair by Dr. R. We do not mention these facts with the view of finding fault with the present professor, for although we know him to be a man of very extensive abilities, still we are persuaded that the students are gainers by the plan he has adopted. Our object in bringing forward these facts, is to furnish incontrovertible proof of the gentleman's veneration for the memory of his predecessor. It is quite absurd to say in objection to Dr. C. that he delivers many of Dr. Rush's lessons without acknowledging the source from which they are drawn. When an infant draws a picture of a horse it may be necessary in order that the looker-on may ascertain what animal is designated, to write "a horse," under it; or when a man borrows an occasional idea from another, that he should acknowledge him for it. But as every one can at once discover one of Paul Potter's horses, without the name being written under it, so the Dr. in borrowing so freely and openly from Rush, very justly considers, that to name him, would be a mere work of superelevation.

Having thus fulfilled our duty to the faculty, in defending them from the unjust censures brought against them, we are again in our characters of public censors, called on to point out fully the danger of their adopting a line of

conduct so unheard of, as that, pursued in relation to Dr. Whilldin.

If we review the history of science we observe, that in proportion as the freedom of enquiry was tolerated and encouraged we have discoveries and improvements crowned the investigations of her votaries ; that in those dark ages, when tyrants considered the ignorance of the subject necessary for the power of the ruler science sank into a state of feebleness and decay, and, that it required the illumination and efforts of the Medicin family to bring into life, that expiring spark, which glazied with such lustre during the age of a Proteus, and an Augustus. So self-evident is this position, and so important is the well-being of science to the prosperity of the community, that the powers of Europe, although many of them are sufficiently aristocratic, have allowed to the investigations of science, the most perfect and unconstrained latitude of enquiry. We are satisfied that we are supported by truth, when we make the assertion that the Faculty of Physic of the Pennsylvania University, have in their conduct to Dr. Whilldin, employed a stretch of power without a parallel. In the former part of the enquiry, we have, for the purpose of entering into a clear investigation of the subject, taken it for granted, that such a power as that exercised by the professors was really within the rule of their office. We have been unable in this view, to discover that the matter complained of, could, by the most learned, be considered destitute of good sense, or by the most squeamish as tinctured with odious personality. But we shall now go farther and suppose, that Dr. Whilldin, instead of eulogising the late Dr. Rush, had thought fit either to criticise Dr. Physick's animal ligatures, or Dr. Chapman's theory of generation ; we aver that had he even done so, neither of these gentlemen were, in their professional characters, entitled to offer a single objection against the reception of his thesis. They might have demanded from him a defence of his opinions, but this being giving in a spirit of rationality, they were in duty bound to award to him the honour, which he had a right to look for.

Should the system pursued by the faculty in this instance be continued, there is a chilling influence thrown over the investigations of the student. If he must measure the scale of his mind by the line of his teacher, what are we to expect of him ?—A commentary on one of the new MEDICAL CLASSICS !! Had the mind of Harvey continued to bind itself to the dogmas of Galen and Avicenna, where would have been the discovery of the circulation of the blood ? or if the genius of Columbus had allowed itself to continue fettered by the narrow and confined views of the navigators of his day, what would now be America ?

Genius is a plant of the most delicate growth ; one which requires the utmost care and attention in its culture. If darkened and crushed when it first seeks the light, it is more than probable that its progress will be feeble and unenergetic. But if it be cherished and supported when it first appears, by the countenance of a respected teacher, it will take root, and “ its fruits will be for the healing of the nations.” Could any treatment have a more deadening influence on a young man just entering into life, than that pursued towards Dr Whilldin. “ The faculty,” says a professor, are dissatisfied with a passage in your thesis : we shall not reason with you, as to whether you are right or wrong, tear out this disagreeable passage and we shall give you your diploma ; refuse to do so, and we shall withhold it.” We are only sorry that Dr. Whilldin was not better advised, and that he did not boldly refuse to comply with a request so inconsistent with the laws of liberality, of justice, and of his country. We would not wish to be misunderstood here ; we are among the last living who desire to encourage a spirit of disorder in the student. We venerate, and so far as we have the power, shall support the privileges and the character of the conscientious professor. We duly estimate the character, and shall ever plead for the rights of the diligent and attentive student.

That our views may be perfectly understood in relation to these two characters, we shall endeavour in a few words to portray the features of each. The professor, who is anxious to obtain the love and respect of his pupils, must devote



his whole heart and soul to the department he teaches. His chief delight must consist in acquiring and conveying information ; he must teach for the love of teaching, not for the love of gain. To his students he must be kind and attentive, frank, but not familiar. They will soon discover how anxious he is to promote their improvement, and the kindlier feelings of the one party, will bring into action those of the other. The interests of both become amalgamated, and the compact of benefit being mutual, harmony is the necessary result. When a professor fulfils his part of of the contract, he does not require to be endowed with any restrictive power over the mind and opinions of the student.

If a man, however, in the high character of a professor does not fulfils his duties, he ought not to calculate on the respect and attachment of his pupils. If lecturing is to him a task which he is glad to hurry over, one which he performs merely for the consideration of money ; if he is irregular in his attendance, and instead of appearing exactly at his hour in his class-room, he comes in late, and after a desultory half hour's conversation dismisses his pupils discontented ; if he is so ill informed on the subject he professes, as to require to have noted on a scrap of paper, the doses of the simplest medical substances, the names of the processes of the bones, or the simplest combination of the acids, and alkalies ; if he does all this, he ought neither to be beloved nor respected.

There is no character more to be estimated than that of the diligent and attentive student. The young man who pursues his professional enquiries with ardour and enthusiasm, who listens to the prelections of his professor with attention and respect, who examines with care all he hears, and reserves, under the control of a just circumspection, the privilege of examining facts, and judging with modesty for himself ; such a man is in his character as honourable, and ought to be as cherished a character as his professor. Let it ever be remembered that the professor was once the student.

The duties of the physician are the most interesting to humanity. The tenderest and most cherished ties of society

are in his hands, and upon his skill or ignorance, these are either to be strengthened or broken. Every man can form a pretty just estimate of the abilities and character of his pastor, or of the genius and talent of his lawyer. No man but a physician is qualified to judge of the skill and medical learning of a physician. As the character of the medical practitioner is, therefore, one of such importance in society, and one which is so difficult justly to judge and estimate, we conceive that no branch of medical police should be more carefully watched and guarded by the public censors, than that of granting diplomas. Colleges are erected by the legislature for examining young men, and declaring whether they are entitled to public confidence ; we allow that under the best arrangement ignorance will frequently pass this ordeal ; but the knowledge of this fact, merely operates as an incentive to us, in searching out, and exposing every departure from duty in the conduct of those who are entrusted with the guardianship of the public safety. We confess that we are further incited to notice, in terms of severe reprehension, the system of preparation which has of late gone into extensive usage in our university ; for the connection which *in after life subsists* between an *alumnus* and his alma mater is of a kind and filial character. He naturally considers her fame and reputation in a manner as interwoven with his own ; and holding, as he does, his diploma from her, he correctly judges that the respectability of this his certificate of qualification, will vary in the honour it bestows, just as the institution from which he holds it rises or sinks in the scale of reputation.

Children as we are, of the University of Pennsylvania, we have with the most anxious solicitude watched her for the last few years. With grief and despair we have seen her deprived of her Rush, her Barton and her Wistar. We felt persuaded that such losses were not to be replaced, and under such an assurance she has had our most tender sympathy. We do not propose now to enter into the enquiry whether the chairs be filled judiciously, or what exertions have been made

with a view of balancing the loss of talent? Such queries, however interesting and important they may be, we wave for the present, as being foreign to the avowed object of the enquiry. With the subject of graduation alone do we intend to occupy ourselves.

So far as our information goes, we are prepared to grant that it has been customary, both in the medical institutions of this country and in those of Europe, for the *graduates elect*, to prepare themselves for their examinations, by a course of questionings on the topics which were probably to be enquired of them by their professors. Under due restrictions, we have no great objections to such a preparatory exercise; for, although we had much rather see students prepare themselves, by a full and extended study of the different branches of the science, still we are willing to allow, that for the sake of the timid and fearful, the grinding system of Edinburgh, or the quizzing one pursued by the students themselves, may offer some advantages.

As all of our readers may not be aware of what we mean by the terms *grinding* and *quizzing*, we shall for their sakes explain in a few words what is understood by these two terms.

An Edinburgh Grinder is generally one of those unfortunate young men called *sticked ministers*, who during the term of their study for the ministry have allowed, in some unlucky moment, the organ of *l'Amour Physique* to overrule that of theosophy; in simple language, one of those who become the parent of an offspring without any other title than a natural one. Unfitted by these *faux pas* for the service of the kirk, they are obliged to draw on their classical acquirements for the means of present support, and no plan is more likely to succeed, than that, of going to Edinburgh and becoming grinders. That is to say, to go about the medical classes, and for a certain consideration, to meet the students privately and converse with them in the Latin language, on the subjects which they will probably be examined on hereafter, by the professors.



The quizzing system formerly pursued, in the school of medicine of Pennsylvania, was confined altogether to the students. Small parties associating themselves together, met and spent an occasional hour, in questioning each other. We again repeat, that all this is very well, and so long as it is confined to the grinder or the student, we have no fault to find with preparatory exercise.

When, however, the professor descends from the rank and dignity which his situation confers upon him, and condescends, for the sake of an enormous fee, to become the grinder or the quizzer of his student, we can no longer remain silent ; our every interest, public and private, calls upon us imperatively to enter our protest against a proceeding, which will more effectually tend to undermine and ruin the reputation of our alma mater, than all those injudicious arrangements, which have been of late years adopted.

We think much too highly of certain of the professors who have gone into the quizzing Business, to believe that they could possibly be aware of the baneful and ruinous tendency of the system which they have adopted, and we feel almost persuaded, that so soon as they have perused this essay, they will thank us for opening their eyes to a true view of the fearful consequences of the plan they have inadvertently followed.

That the effects of this preparatory system may be fully exposed we shall, in a few words, show the tendency of such a quizzing exercise. The professor is the quizzer, his pupils are the quizzed. The individual, who is afterwards to decide upon the qualifications of the candidate for a diploma, is the same person who, for a year previous to it, is in the constant daily practice, of enquiring of him, answers to those very questions, which are afterwards to be proposed to him, as a test of his qualification for the highest honour in medicine. Again, more than one professor associates in the same concern ; in plain undisguised language, a copartnership is formed, for making Doctors, in which the divi-

sions of the profits are as well calculated as the nicest settlements on the exchange. We can find no apology for this money-making system. The professors in this university have been in the habit, of late years, of receiving, from their chairs, a remuneration in money superior to that received by any other body of men in the same situation. For four months teaching, these fees, have for some years past, ranged annually from \$8,000 to \$10,000.

It must become self-evident that from one year's quizzing, the most trilling and deficient student will acquire from this continued drilling, a parrot-like habit of giving answers to questions; concerning the spirit, the science, and the philosophy of which, he remains in the darkest and most disgraceful ignorance. Are we, who laboured incessantly during the term of our studies, to be placed on the same rank with every driveller, who can afford to fee this company? God forbid!

If it should be determined, that money is to purchase that, which ought only to be awarded to diligence and exertion, we would propose that the farce of an examination should be wholly dispensed with, and that degrees should be sold wholesale and retail after the fashion of the schools of Aberdeen and St. Andrews. There is a stern, plain simplicity adopted by these ancient Scottish seminaries, which we cannot help admiring. They do not attempt to varnish over the matter, but with perfect candour declare, that they will make doctors for the small charge of 2*l.* 5*s.* 3½*d.*; this is perfectly open and candid, and as we cannot see any difference betwixt giving a diploma, without any examination, and granting one to a candidate, for answering questions he has been drilled into for a year, we would, if the quizzing system should be allowed to continue, seriously advise, that the plan of Aberdeen be adopted "in toto." It will save the students much time and money, and will bring into the general coffers, that which under the present arrangement falls only to

a portion of the body corporate, and may then go towards buying books or founding a museum.

As we should wish to anticipate any objection which may be attempted against the consistency of our observations, we would observe, that a professor having private pupils, and holding a quizzing class, are two very different things. We allow that those great men whom we have mentioned with so much respect were in the habit of having private pupils. Yet the knowledge of this fact, takes in our estimation nothing from their reputation. To bestow medical instruction upon a limited number of young gentlemen, and to allow them the benefit of colloquial information, is perfectly in tone with the rank and character of a professor. But to become a quizzer, to receive \$100, from fifty or sixty students for drilling them to answer questions, is really and truly to quiz the pupil, and to tend to degrade the high standing of the professor, to the same level as that of the "*sticked minister*."

One caution and we have done; as the spirit and bearing of all our observations are intended merely as correctives, we would wish to convey no personalities, and have therefore wrote as generally as the nature of the case would admit. We are aware that our generalizing may be taken amiss by certain members of the faculty, who feeling equally with ourselves the injurious tendency of the system of quizzing, give to it their most decided disapprobation. It is an unfortunate, although a necessary evil, that when there is any variation from correct thinking or acting in one or more members of a body corporate, the blame is thrown not on the individual, but on the corporation. We sincerely hope, however, that these our observations will be taken in the spirit in which they are intended. When we observe the great strength which rival institutions on each side of us are acquiring, we tremble for our alma mater. We would wish to purge her from every thing which can derogate from the respectability of her diplomas, and to open the eyes of all her professors to the

fact, that it will require from them great exertions to retain the standing which this school now holds. Let them not, we beseech of them, continue to deceive themselves by applying this flattering unction to their minds, that, as the school of Pennsylvania was once the great medical establishment of the United States, it must for ever remain so. It was their Woodhouse, their Barton, their Rush, and their Wistar, that gave to it this high and elevated standing, and although their great and deserved reputation may have thrown a halo around it, which will require some time to dissipate, still the hour is rapidly approaching when the University of Philadelphia must be measured by the talent which she possesses, not by that which she could formerly number.

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**ART. XX.** *The Philadelphia Journal of the Medical and Physical Sciences.* Edited by N. CHAPMAN, M. D.

AMONG the new publications which have appeared since our last number, the above Journal, from the manner of its being ushered in the world, and from the high auspices under which it has appeared in the literary horizon, is particularly calculated to attract our attention. The avowed object of the Philadelphia Journal is "to evolve and stimulate the genius of the country to invigorated efforts, *by holding out a respectable and more permanent repository for its productions*;" to stand forth the champion of American science, and to retrieve the medical literature of the country, from the contumelious sneers and aspersions which have been so illiberally cast upon it. For the successful performance of this undertaking, all the talent of what has been considered the first school of medicine in our country, was emphatically and loudly pledged. We confess that we looked for the first number of this Journal with an interest, and impatience, which we have seldom experienced.



We should not think, that we were discharging our duty to our readers, should we pass over this publication, without giving them some idea of the manner in which these high promises have been fulfilled, in the first number. Indeed, on perusing it, we have found so much to which we are disposed to call their attention, that if we were to indulge our inclinations in this respect, our remarks would occupy too large a portion of that department of our journal which is devoted to these inquiries.

The prospectus, which is placed as a preface to the Journal is written with great care and considerable talent. In the selection of its topics, the writer has been judicious; but there is something, in the management of them, which we cannot approve. There is a constant appeal made to popular prejudice, an effort to conciliate public favour, at the expense of truth and independence, a frequent reiteration of "unrivalled" excellence of our countrymen, in every qualification required in a physician, &c. &c. Now we should not be surprised to see all this in a political composition. We know that there are men who rise into an ephemeral distinction, by artfully playing upon such feelings; and who owe their eminence, mainly, to their unprincipled address in this respect. It would not excite our surprise, or any other sentiment but pity, to find such a person, at one time speaking of Great Britain in terms so hyperbolical, that even Englishmen would blush at the exaggeration and grossness of the flattery, while, at another, he would exhaust invective, and be unable to find terms of reproach sufficiently bitter, in speaking of the same people;—if we should find him at one time discoursing of his country, as if all the worth and talent, and virtue in it, were confined within the narrow limits of a small political sect, and that all the other parts, including its government, were only remarkable for their baseness and imbecility, and in a short time afterwards, courting this very government, by every act of self abasement and by every fawning, servile art, which an ignoble mind can imagine. We say, that these things would not excite our wonder, and scarcely our indignation, should we witness them in a politi-

cal demagogue, because we know that these are the arts which such characters employ to mislead the judgment, lull asleep the suspicions, and steal upon the confidence of the people. But when we see the editor of a Journal which is dedicated to science, and the avowed object of which is to elevate the medical character of the country, stooping from the dignity of his station, and seeming to depend for success, not upon its intrinsic excellence, but upon his address, in practising upon the infirmities of mankind, we cannot avoid expressing our decided disapprobation.

There are none, who feel more indignant at the base calumniators of our country than we do. We believe we feel an interest as deep, an affection as ardent, and a pride as sensitive in every thing which relates to the true dignity and welfare of the country, as those who talk more about it. We will yield to none in our admiration of the structure of our government, and the energetic character of our countrymen, and we most sincerely believe, that there are none, who anticipate, with more confidence, or more fondly look forward to our future literary greatness, than ourselves. Nevertheless we do think, that the proper way to hasten and effect this object is not to tell our countrymen that they have already arrived at perfection, or to flatter their national vanity by saying to them that they have done more than any one else, and therefore, that but little remains to be done.

Since, however, the editor of the "Philadelphia Journal" is so zealous a stickler for "American genius," since he is so anxious "to invigorate its efforts by holding out a respectable and more permanent repository for its productions," we would inquire how it happens that, on one occasion at least, he seems to have been utterly insensible to its claims. It is a fact too notorious to be soon forgotten, that he stands charged before the public, with being a virulent persecutor of one of the best men and most distinguished citizens, which this or any other country had produced. That a person should have been active in impugning the genius of the illustrious RUSH, undoubtedly the first physi-

cian that has yet appeared amongst us, and whose name has been long consecrated among the benefactors of his nation and his age, and then talk about his anxiety "to evolve the genius of the country," and seems to us an instance of inconsistency that cannot well be reconciled.

We trust that the independence with which we have spoken, and shall continue to speak of this and every other production, concerning which we shall undertake to pass judgment, will not be mistaken. We hope, we shall not be suspected of allowing narrow jealousies, personal pique, or any unworthy motives to influence, or seduce us from exercising our editorial functions with integrity. On examining our minds, we do not perceive in any manner this to be the case, nor can we doubt that the peculiar and independent relation in which we stand, will totally exculpate us in the minds of our readers from such a charge.

We shall, on this, and every other occasion, exert our limited means to awaken and keep alive, a spirit of free enquiry, to encourage merit, and foster genius. On the other hand, while we studiously avoid any wanton attack upon the feelings of another, we shall not hesitate to explore hollow assertion and empty pretence, whenever we find it; nor will we allow the delinquent to escape, whether he be found with a cap and bells, or under the grave and imposing robe of a professor.

We shall now proceed to examine the scientific part of this Journal; the first article of which is entitled,

*"On the nourishment of the Fœtus. By N. CHAPMAN, M. D."*

This article, we perceive, is a lecture, which the author has been in the habit of delivering to his class for several years past. About three years ago, it was read, as we are informed, before the Philosophical Society of this city; and during the last summer four or five abortive attempts were made, to convene the medical committee of this association, for the purpose, as the members were informed by special notification, of hearing

Dr. Chapman read his paper on the nourishment of the fœtus. It was finally read to a few of the members of that committee; and now at length, we find it gracing the front of the "Philadelphia Journal of the Medical and Physical Sciences."

We mention these circumstances, in order to show with what fondness and pride, the author cherishes this new embroidered bantling, and how evidently he seems to regard it as one of the most happy offsprings of his intellect. We must confess, however, that we see neither comeliness in its form nor vigour in its constitution; and, as in fact, it is the legitimate offspring of another gentleman, we cannot help expressing ourselves a good deal displeased with Dr. Chapman, for having shown himself so bad a *foster-nurse* in the present instance, since what was originally a fine and sensible little urchin, he has now turned out into the world, "to bide the peltings of the pitiless storm," a pale-faced sickly and distorted brat, whose tinsel trappings, serve but to excite our commiseration.

He begins by referring all the various speculations respecting the nourishment of the fœtus, to the two following heads:

1. That the fœtus is sustained by the liquor amnii received by the mouth.
2. That it derives its food through the umbilical vessels.

The first of these doctrines has been conclusively refuted by Alexander Monro the elder, nearly a century ago, and our author, accordingly, very properly rejects it. We do not find that he has brought forward any new arguments on this point, in the present instance. Having dismissed this doctrine, he enters upon the consideration of the second one just stated, and after adducing a variety of arguments, in opposition to it, he rejects that also.

Although it be now almost universally admitted, that the fœtus receives its nourishment from the mother, through the medium of the umbilical cord, yet the par-



ticular circumstances connected with this phenomenon are by no means settled. By some it is believed that the arteries of the maternal portion of the placenta secrete a nutritious, chyliform fluid, which is taken up by the umbilical veins, and carried to the fœtus, for its nourishment. By others, it is maintained, that the blood of the mother constitutes the fœtal nourishment, and that this fluid is conveyed directly from the vessels of the womb, by those of the placenta and funis, to the fœtus.

The first of these doctrines, Dr. C. rejects only in part; for he admits, that the "vessels of the placenta secrete a fluid for the nourishment of the fœtus:" but he does not believe, that this fluid is taken up by the extremities of the umbilical veins, and by them carried to the fœtus. The latter opinion he rejects altogether, and brings forward arguments against its reception. We shall presently examine the force and bearing of these arguments.

Admitting therefore, as he does, that the arteries of the placenta secrete a chyliform fluid, "highly elaborated, and adapted to the nourishment of the fœtus," how is this fluid conveyed to the fœtus, if the veins do not perform this office? Upon this point, the author says: "To me it is manifest, that the fluid is taken up by a set of absorbents, opening into the cells of the placenta, which run along the umbilical cord and terminate in the liver of the fœtus." This is the *sum total* of the professor's doctrine (for we will for the present call it his);—a doctrine upon which, if we are to judge from the great anxiety he has shown to bring it forward on all occasions, he seems to rest no trifling claims to reputation, and by the publication of which, he no doubt hopes to dissipate the contemptuous interrogatories contained in his motto, from the *Edinburgh Review*.\*

\* "In the four quarters of the globe, who reads an American book? or goes to an American play? or looks at an American picture? what does the world yet owe to American physicians and surgeons." *Edinburgh Review*.

In reading this article, we are struck with the evident anxiety which the author betrays, in almost every paragraph, to impress his readers with the belief that the doctrine he advances is original with him. That he is not, however, entitled to the least credit, for originality in this instance, is readily shown ; nor will it be more difficult to show, that his arguments are altogether futile, and his doctrines untenable. In the second volume of the "*Medical Essays and Observations published by a society of physicians at Edinburgh, 1734,*" there is an essay on the nourishment of the foetus, by Dr. Alexander Monro, the elder, in which all the leading arguments and doctrines brought forward by Dr. Chapman in the article under review, are explicitly and unequivocally set forth. We will now give extracts from this essay in proof of this assertion.

After adducing some very common place arguments, against the existence of a continuous circulation of blood, from the mother to the foetus, our author says : " Driven forward by the energies of her (the mother's) heart and arteries, the stream or blood urged in this way, could not fail, at once to crush and reduce to chaotic mass the exquisitely delicate and tender organization of the embryo, or even of the more advanced foetus." Dr. Monro says : " 'Tis worth while to remark, by the way, the inconveniences that are shunned by the want of an anastomosis between the vessels of the womb and secundines. The violence of the mother's circulatory fluids are not in hazard of destroying the embryo while tender.\*"

Dr. Chapman asserts that the red blood of the mother, is not carried, by the vessels of the funis, to the foetus ; and, that its nourishment is derived from a fluid of a lactescent character, secreted by the placental arteries. " I cannot help thinking," says Dr. C. " that *I am entitled to the conclusion*, that the foetus fabricates its own blood, and that the only dependence which it has on its mother, is for a supply of materials, out of which it is formed. Does any thing more take place, here than in the egg ? Confessedly the chick by its own organs, produces the blood, and what reason is there to doubt, that the foetus in the viviparous animals, which has

\* Vide Medical Essays and Observations, vol. ii. p. 135.

an equivalent apparatus, is not competent to the same office?" Monro\* says: "The red particles of blood are not probably absorbed; my reasons for thinking so, are: the chylous appearance of what is separated by the glandulæ of cows, and sheep; and the want of an example of red globules being absorbed any where else. If it be asked, whence then has the *fœtus* the red blood? I answer, without entering into any philosophical comparison of the *placenta* in the *fœtus*, and of the lungs in respiring animals, that *fœtuses* of viviparous animals have their red blood from the same source that chickens *in ovo* have theirs; which can have no other, than the action of their heart, and of the vessels in their body and secondines."

Dr. Chapman's remarks on the analogy between the nourishment of the *fœtuses* of viviparous and oviparous animals, is an abstract of Monro's chapter "*On the nourishment of the fœtuses of oviparous animals.*"† We desire the reader to examine for himself, as it would extend this article beyond due bounds, were we to give the passages here

The great idea, however, which constitutes the bone and marrow of this doctrine, so ardently advocated by our professor, is that *there is a set of absorbents in the umbilical cord, which opening into the placenta, take up the nutritive fluid secreted in that organ, and which convey it to the fœtus, to be elaborated into blood.* This idea Dr. C. has claimed as original to himself, both in public and private, in his lectures and in conversation, as we have ourselves repeatedly witnessed; and yet the following passage must have been perfectly familiar to him, since he refers upon other occasions to the very essay from which it is extracted.

Having shown, that the red blood of the mother does not pass into the *fœtus*, but that there is a lactescent fluid secreted by the placental arteries, Dr. Monro says, "to shorten hereafter the dispute concerning the nourishment of a *fœtus*, I may remark, that it will be sufficient for my purpose in the present question TO HAVE PART

\* Medical Essays and Observations, vol. ii. p. 144.

Ibid. page 204.

OF THE VESSELS OF THE SECUNDINES GRANTED TO BE ABSORBENTS, the negative of which, I dare affirm, nobody will undertake to prove.”\*

We can perceive no difference between this opinion advanced by Monro, and the one offered in the present essay, by Dr. Chapman, as his own. Why therefore did not Dr. C. refer to Monro, as the source from which he drew this idea? He cannot plead in excuse for this flagrant dereliction of his duty, that he was not aware of what Monro had said on this point; for we have positive evidence that he had read this writer’s observations upon foetal nourishment.

But Dr. Monro is not the only writer who has published this doctrine of the nourishment of the fœtus. Schreeger, a German physician, in an academic dissertation, entitled *De functione placentæ uterinæ*, Erlangen, 1799, of which we have a copy, delivers a doctrine, not as Dr. C. says, very *analogous* to the one he discusses, but precisely and identically the same. There is even very little difference between the arguments of those two gentlemen in support of this doctrine. Schreeger maintains that “there is a fluid of a sero-albuminous nature, separated by the uterine arteries, which is deposited into the cells of the placenta: From these cells it is absorbed by absorbent vessels of the umbilical cord, and by these carried to the thoracic duct, which conveys it into the blood-vessels of the fœtus, where it undergoes the process of assimilation, by the action of its own organs. It is again returned from the fœtus to the placenta, and after undergoing the process of sanguification in that organ, it is returned to the fœtus by the umbilical vein, and serves to support by its nourishment the tender fabric of the embryo. The recrementitious parts of the blood are rejected by the umbilical arteries into the spongy tissue of the placenta, and afterwards removed by the lymphatics of the womb.”†

Dr. Chapman says, in the concluding paragraph of his paper, “It appears from a note in the *last* edition of Richerand’s Physiology, that a German writer of the

\* Medical Essays and Observations, vol. ii. p. 144.

† Vide Schreeger de functione Placentæ Uterinæ Dissertatio, 1779.



name of Schreder (Schreeger) entertains views of this subject very analogous to those I have advanced. Whether he has priority of claim I am unable to determine, as the date of his publication does not appear. I have taught the doctrine in my lectures since 1803, and read a paper on it at Edinburgh *two years before*." Schreeger published his essay in 1799. Of this fact, Dr. Chapman was informed above a year ago. Dr. Chapman evidently wishes to produce the impression, that the note in Richerand's Physiology, referring to Schreeger's doctrine, was first published in the *last* edition of this work. "From a note," says he, "in the *last* edition of Richerand's Physiology," &c. &c. Dr. Chapman ought to have acted more candidly, and stated that this note was published in *all* the editions of Richerand ever published. Dr. C. must have known this fact, for he himself edited one edition of this work; and it is to be presumed that he read the work as soon as it was published in our own language.

In Hopkins and Earle's edition of this work, 1808, which was republished in this country from the *first* English translation, made from the *first* French edition in London, 1803, Schreeger's ideas on the nourishment of the foetus will be found, not in a note, but in the body of the work. How then can Dr. C. honestly say, "*from a note in the LAST edition*," &c.?

We will not accuse Dr. C. of having read the original work of Schreeger, for beside that that book is extremely scarce in this country, it is printed in the *Latin* language.

Having now, we conceive, proved that Dr. Chapman has advanced nothing new in the paper before us, we will enter into a cursory examination of the validity of some of his arguments.

It appears to be established, upon the strongest evidence possible—direct experiment, that there is no continuous vascular connection between the uterus and the foetus; or in other words, that the vessels of the uterus do not inosculate with those of the funis umbilicalis; and consequently that no fluid can pass directly from the one set of vessels into the other. But although it be certain, from this anatomical fact, that the blood cannot flow in a continuous current from the

arteries of the womb, into the umbilical veins of the placenta, still it is maintained by many of the most celebrated physiologists, that the placental extremities of these vessels possess the power of absorbing the fluid which is brought in contact with their mouths. It is thus, as is now very generally believed, that the fœtus draws its nourishment from the mother ; not, indeed, by receiving through these vessels the maternal blood, but by the absorption of a chylous fluid, which is secreted and poured into the cells of the placenta, by the arteries of the uterus. The only difference existing between this doctrine and the one advocated by Dr. C., consists in the former alleging, that the umbilical veins possess the power of absorbing this chyliform fluid ; and the latter denying this function to these vessels, and maintaining that it is performed by a set of lymphatics, which are supposed to exist in the *funis* and placenta.

Let us now examine some of the arguments with which our author attempts to disprove the power of the umbilical veins to absorb the fluid deposited in the cells of the placenta, and which, it is now pretty generally believed, is destined for the nourishment of the fœtus.

All the arguments which he brings forward, upon this head, are taken from *Monro's* essay on fœtal nourishment, and go to show that *there is no transmission of blood from the mother to the child*. This point, we conceive, has been ably and conclusively handled by the author just mentioned. We cannot, however, see how these same arguments can prevail against the opinion that the umbilical veins perform the office of absorbents, and that *they* carry the nutritious fluid from the placenta to the fœtus. Dr. Chapman, it is true, says, "that the arteries of the cord have no openings," yet this is contradicted by able anatomists.\* "The placenta," says *Monro*, "is covered on the side next

\* Medical Essays and Observations, vol. ii. p. 128. Ruysch. Thes. 5. n. 41. *Rauhault* Memoires de l'Acad. des Sciences, 1714 and 1716.

the womb with a fine membranous continuation of the chorion. The extremities of the umbilical vessels pierce this membrane, and show their very small orifices on its side next the womb." Rauhault calculates that only one seventh part of the capillary branches of the human umbilical vessels reach the exterior surface of the placenta.

"The effusion of blood by one set of vessels," says Dr. C. "and absorption by the other is a creation of the imagination, and has no real existence." In support of this assertion he does not advance a single direct argument. For those which follow, go only to prove that there is no immediate continuous vascular connexion between the parent and the foetus. They do not disprove the *absorption* of blood by the umbilical veins. "It is well known," says Dr. C. "that after the expulsion of the child, and the cord is cut asunder, no hæmorrhage ensues, on the side of the mother." Now, this proves that there is no continuous course of vessels from the mother to the child; but it does not prove that there may not be a sanguineous absorption by the extremities of the umbilical vessels, during the period of utero-gestation. As the placenta and cord derive their *life* from the child, it is evident, that when they are separated from it, they must at once become a *lifeless mass*. But absorption is a *vital* process. The vessels, whatever they be, that perform this function do so by virtue of their vitality; deprive them of this, and you deprive them of their power of absorption. No mechanical pressure can supply the loss of vitality in the absorbent.\* Hence this argument does not disprove the absorption of blood by the umbilical veins; it merely shews what might be expected, that a *dead* vessel does not absorb, and consequently that in the instance given, (granting that the blood thus circulated from the mother to the foetus) hæmorrhage could not possibly have taken place.

The same objection applies to the following experiment, performed, as it is alleged, by our author.

\* Munro on Foetal Nourishment.

“The side of a pregnant bitch was laid open and the umbilical vein of the foetal pups divided. As I anticipated the hæmorrhage was profuse, and the foetus, on inspection, nearly exhausted of blood. But in repeating the experiment I previously tied the artery of the cord, and little or no loss of blood was sustained.”

This experiment, which is given without the name of any other person in testimony of its having been regularly performed, (a courtesy which physiological experimentalists have always thought proper to observe towards their readers,) may serve to show that there is no immediate and continuous vascular connexion between the mother and the child, but it does *not* prove that the maternal blood, after having been poured into the placental cells, is not absorbed by the extremities of the umbilical vein. For, as soon as the funis of the pups was divided, the placenta became a lifeless body, and its vessels were therefore incapable of absorbing; which, as we have just observed, is a vital process. There was no necessity of performing this cruel experiment to disprove the existence of a direct vascular connexion between the mother and the foetus; for the injections of Monro have long ago settled this subject beyond all doubt.

We ourselves do not believe that there is any *blood* transmitted from the mother to the child, either by a direct communication or by absorption. We object to these arguments merely on the score of their not proving what the author alleges them to do.

In another experiment of our very philosophic author, he says, “he fed different animals, while pregnant, on madder, and though *several* parts of the maternal system *was* (were) manifestly coloured, I never could detect the slightest appearance of it, either in the foetus itself, the *liquor amnii*, or any portion of the *secundines*.”

What a specimen this of physiological wisdom! Dr. Chapman gravely tells us, that after feeding pregnant animals on madder, *neither the secundines nor the liquor amnii* were found to be imbued with the peculiar colour of this substance!! We are not at all astonished at such information, for we are aware of the fact, and



Dr. Chapman ought not to be ignorant of it, that *madder* when taken into the system, imparts its colour to the bones only, and can never be detected in any other part of the system. Dr. Gibson,\* of Manchester, in a very philosophical inquiry into the effects of madder on the animal system, has proved incontestibly that no parts of an animal *except those which contain phosphate of lime*, can become tinged with the colouring particles of madder. What then, we would ask Dr. Chapman, "*were the several parts of the maternal system manifestly coloured.*" We beg the Doctor to be a little more precise when he next informs us of his physiological experiments. To us it is clear that the Doctor's eyes must have been deeply jaundiced, or *that he never performed this experiment at all*, since he says that he saw several parts of the maternal system *manifestly coloured*; a thing which was *utterly impossible!* *Nimium ne crede colori.*†

Speaking of the sympathy which exists between the uterus and the mammæ, Dr. Chapman says: "these organs often exchange functions. Thus in a state of pregnancy the office of forming milk, or at least a fluid closely resembling it, as nourishment of the fœtus, devolves on the uterus; but as soon as the child is born, this duty is transferred to the mammæ, the uterus relapses into a state of inactivity, for a season: and the *epigastric artery, the immediate instrument by which the secretion is accomplished*, becomes once more small in comparison with its preceding size."

\* Memoirs of the Literary and Philosophical Society of Manchester—Second Series, Vol. I. p. 146.

† The Editor of the National Gazette, speaking of this paper, says—"The positions taken are sustained by several well contrived experiments, and by a vast number of facts and observations; and, upon the whole, the writer may be considered as having placed his physiological views on this subject, upon an incontrovertible basis." The above are some of the writer's "well contrived experiments," and the last is one of those "facts" which place his physiological views on this subject upon an incontrovertible basis!" We cannot help reminding the intelligent editor of the good old maxim—*ne sutor ultra crepidam.*

Had we been told by any one that Dr. Chapman had asserted in his lectures, "*that the epigastric artery was the immediate instrument by which the secretion in the uterus is accomplished,*" we should have regarded it as a gross attempt to slander his reputation; for we could not have believed that any regularly educated physician, much less one who occupies the responsible station of a professorship in one of our first universities, could be so very ignorant of the structure of the human body, as to be capable of uttering such egregious nonsense. Notwithstanding this, it is a fact, that Dr. N. Chapman, Professor of the Institutes and Practice of Medicine in the University of Pennsylvania, does state, in the article under review, that the "*epigastric artery is the immediate instrument,*" of a secretion performed in the uterus! As ignorance, however, is no crime, we could readily pardon such an absurdity even in a professor; but in referring to Blumenbach as authority for such nonsense, we do know, that he has been guilty of a slanderous outrage upon the scientific reputation of that illustrious German physiologist. If Dr. Chapman will question any of his "*second course*" students, upon this point, he will learn from them, that the epigastric artery has no more to do with the uterus, than it has with the great toe; that it does not even arise from the same trunk that gives origin to the uterine arteries, and consequently, that it neither receives nor transmits a drop of blood to that organ! Dr. Chapman evidently regards this connexion between the epigastric and mammary arteries, as one of his *triumphant* arguments. He says: "when the milk does not come at the ordinary period after delivery, the lochia are much more abundant, and sometimes are *not a little* changed in colour and consistence, by the admixture of a lactescent fluid. *These facts I consider as irresistible.*" We are not at all surprised that Dr. Chapman, who calls *the epigastric artery the immediate instrument, by which the uterus secretes its lactescent fluid*, should consider "*these facts as irresistible.*" But we, who put no faith in this "*immediate instrument,*" see nothing so "*irresistibly*" demonstrated, by "*these facts,*" as his ignorance of the

anatomy of the parts in question, and the absurdity of his conclusions.

Our own opinion upon the subject is, that the *albumoid* liquor, which Harvey, Haller, Blumenbach, and others have shown to be secreted into the cells of the placenta, is taken up by the small orifices of the capillaries of the umbilical vein that open on the surface of the placenta and its cells, and carried by this vessel to the fœtus, which by its own organic powers converts it into blood. There is perhaps no blood returned from the fœtus to the mother, and the quantity of nourishment required for the support and growth of the fœtus being but small, the absorption must be carried on very slowly. The facts and arguments first brought forward by Monro, prove incontestibly, that there is no interchange of blood between the fœtus and the mother. The fœtus receives, according to that celebrated writer, not red blood, but a chyloform fluid, which serves for its nourishment, and which it converts into blood, like the chick in ovo. The recrementitious part of the fœtal blood, is, according to him, emptied into the sinuses of the womb to be carried away like bile, pancreatic juice and other liquors of the adult poured into the intestines to be removed from the system.

Dr. Monro does not seem to have made up his mind whether the absorption of this nutritious fluid is performed by the extremities of the umbilical vein, or by a set of absorbent vessels. If the former, he said, should be denied, he would explain this absorption, in the only possible way left, *i. e.* by supposing the existence of *lymphatic absorbents in the funis*. In this latter opinion Dr. C. agrees *in toto* with Dr. Monro; and as this is the essential point of the doctrine so adroitly defended by our ingenious author, we think it would have been decorous in him to have quoted the Edinburgh professor. "The fœtus," says Dr. Chapman, "must receive its nourishment through the blood-vessels of the cord, or by absorbents: there is no other way in which it can be conveyed. Having shown that it is not by the former, am I not entitled to infer that it is by the latter?" Certainly, Sir, and so are we, with just as great claims to originality as you, since both the arguments, and the

conclusions, are neither yours nor ours, but those of Alexander Monro of Edinburgh, who lived in the beginning of the last century.

In thus taking notice of this favourite production of our author, in a way which may, perhaps, be deemed rather uncourteous by some of our readers, we declare that a sense of our duty alone has led us to the disagreeable task. We take no delight in inflicting castigations of this kind, upon offenders, however glaring the fault, or contemptible the imposition. The present instance, however, is one which is peculiarly calculated to attract our attention. The lofty standing which the author of this article has taken, not only points him out a legitimate object of a rigorous scrutiny, but lays him open to animadversions, which applied to men of humbler pretensions, might be justly deemed as needlessly severe. Standing forth, as he does, in the proud and daring attitude of defiance; and offering himself in the true spirit of chivalrous patriotism, as the champion of the insulted genius of our country, we have a right to await from him, a noble and honourable conduct in relation to his own literary and scientific career, and a reputation unstained with the low and contemptible folly of palpable plagiarism. In our capacity of editors, we too, hold ourselves bound to vindicate the honour and reputation of our native science. We regard it, as one of our first duties, to watch over the interests of medical science, and to oppose error and fraud wherever they be found. It is a just sense of these important duties, that has induced us to speak thus plainly to the author of the present article. We considered ourselves bound, if we meant to perform our functions with honesty, to notice the gross errors, the absurdities and contradictions, of this favourite production of our author; and above all, to expose the more censurable and shameful attempt which he has here made to appropriate to himself the sentiments and doctrines of others. Should the Journal which we are now reviewing, find its way into Europe, what will our transatlantic brethren say, when they see the lofty pretensions avowed in its prospectus, and insinuated in its motto, supported



by such a specimen of literary integrity and scientific research? What will they think, when they learn, that the editor of this Journal, the avowed object of which is to vindicate American science, advances as his own, a doctrine which has been well known in Europe for nearly a century? What, we say, when they hear him assert that the epigastric artery is the "*immediate instrument*" of a secretion performed in the uterus? And what, when they find him gravely declaring, that he saw the *colour of the madder in different parts* of a pregnant animal that had been fed on it, and that he looked for it in the *secundines* of the fœtus? When they notice these things, with many more equally preposterous, and then turn to the disgraceful expedients which he has used to substantiate his claims to originality, they will, we greatly fear, entertain but very little reverence for our native science. Indeed when we reflect upon the effects which such graceless pretensions must have on the literary and scientific reputation of our country, and more especially when put forth by the *dii majores* of our own science, under the assumed office of its champions against foreign aspersions, we feel but little disposed to show any quarters to the inglorious delinquences of our author. Will not our transatlantic enemies appeal to this *morceau* of one of "our most distinguished physicians," and with a malicious, sneering triumph, exhibit it to the world, as evidence, confirmatory of their foulest slanders and bitterest reproaches? We fear, that even the powerful author of the *Appeal* will not be able to remove stains so deeply and glaringly infixed on the annals of our native science. Surely we do not stand in need of such aids, "to evolve and stimulate the genius of our country to invigorated efforts," or such defenders against "foreign usurpations and calumnies."

Non tali auxilio, non defensoribus istis,  
Tempus eget.

FINIS.



